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## The effects of procedural justice and work overload on job performance

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THE EFFECTS OF PROCEDURAL JUSTICE AND WORK  
OVERLOAD ON JOB PERFORMANCE

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A Thesis  
Presented to the  
Faculty of  
California State University,  
San Bernardino

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In Partial Fulfillment  
of the Requirements for the Degree  
Master of Science  
in  
Psychology:  
Industrial/Organizational

---

by  
Seana Maria Nuñez

December 2006

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OVERLOAD ON JOB PERFORMANCE

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by  
Seana Maria Nuñez  
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Approved by:

  
Janelle Gilbert, Chair, Psychology

11/28/06  
Date

  
Robert Kramer

  
Jodie Ullman

## ABSTRACT

This thesis explored the relationship between work overload and procedural justice on job performance. Previous literature on the subject suggested a linear relationship between stress levels and performance, or an interaction between job stressors and other variables, such as work overload, on job performance. This thesis used planned comparisons to test three hypotheses. The first was that participants treated unfairly would show a greater decrease in performance when performing a task than participants treated fairly. The second hypothesis was that participants in an unfair procedural justice and a work overload group would show a greater decrease in performance on a task than participants in an unfair procedural justice and no work overload group. The third hypothesis was that participants in the fair procedural justice and work overload group would show a greater decrease in performance on a task than the participants in the fair procedural justice and no work overload group.

The theories were tested by having the participants randomly assigned to groups, and performing a proofreading task at two time intervals. Both intervals were timed, but the manipulation was introduced only in the second

interval. The results did not support hypotheses one and three, but there was support for hypothesis two.

Suggestions for future research include more control for confounds, such as reading skills and levels, in order to have more uniformity on the proofreading task, having simpler proofreading documents, and finding a better method of manipulating fairness.

## ACKNOWLEDGEMENTS

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I would like to thank my committee members, Dr. Jodi Ullman, and Dr. Robert Cramer for their assistance. Proofreading is never easy, and they have both helped me refine my ideas, rewrite things so that they make more sense, and to find that period that I seem to have missed.

My family and friends have been my support system for the past three years. Thank you to all of you for understanding when I disappeared for hours and wasn't around because I had to study. And yes, I expect you all to read this, cover to cover, and be able to discuss it with me over dinner.

DEDICATION

To Mom and Daddy

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## CHAPTER ONE

### ORGANIZATIONAL CHANGE

Organizational changes affect everyone in an organization, and frequently the outcomes for employees are negative. What effects employees, in turn also effects the company. Profits and production can decrease because of employee stress and anxiety. Valuable employees can be lost, not because they are laid off, but because they choose to leave, and no longer trust the organization. Trust in the organization can decrease if management does not handle the layoffs in a fair manner. The purpose of this paper is to address performance, stressful organizational situations, and to study the inconsistencies found in the literature. Previous experimental literature anxiety and performance suggest and support a curvilinear relationship between the two. Much of the current applied literature suggests a linear relationship between anxiety and performance. This paper will discuss possible reasons for these inconsistencies.

## Stressors in the Workplace

Layoff conditions provide several good examples of workplace stressors, such as role overload and role ambiguity. When individuals are laid off, their work needs to be redistributed among the survivors. Those still employed often lack the human or monetary resources to complete all of their tasks. As a result, their stress increases, while, their morale and job performance decrease.

There are several documented causes of job stress. Among them are role overload, work overload, and role ambiguity. Role overload is caused by the extra tasks assigned to the survivors in the organization. Role ambiguity is when employees (in this case survivors) are not sure exactly what the jobs of those laid off were but are expected to perform them anyway.

Workload is closely tied to role overload, where there are too many demands on time for an employee. Jamal (1984) used nurses as his participants while investigating the effect of role overload on overall job performance. Jamal hypothesized that negative effects on job performance caused by role overload was mediated by the level of organizational commitment. Specifically, job performance

of individuals with high organizational commitment would be less seriously effected by the increasing stress caused by role overload than the job performance of those with low organizational commitment. Jamal found that the difference in performance based on role overload was significantly different depending on the level of organizational commitment, either high ( $r = -.14$ ) or low ( $r = -.43$ ) (Jamal, 1984). Jex (1998) also notes that much of the research on work overload has focused on the health problems associated with the stress caused by the overload, and the effects on job performance. As overload and stress increase, the health of the employees diminishes, and their job performance decreases (Jex, 1998).

Brockner, Grover, Reed, DeWitt, and O'Malley (1987) found that in layoff situations, the "demotivation" of the survivors was higher when those laid off were uncompensated, and when the survivors identified highly with those laid off. They found that their "demotivation" took the form of decreased performance and lower commitment to the organization (Brockner et al, 1987).

All of these stressors that can occur during layoffs can combine to make life for the survivors difficult. As stated before, morale can drop, performance can diminish,

and productivity can decrease. Stress is important to organizations, and thus to researchers, because stress often has negative effects on employees' job performance, which can in turn have negative effects on the company's productivity, and more importantly, the company's success (Motowildo, Packard, & Manning, 1986). Understanding the long-term effects of these stressors on the remaining employees may help organizations plan ahead for the problems they may face, and to find ways to keep their remaining employees with the organization.

#### Stress and Stressors in the Workplace

Stress in the workplace can be detrimental to the performance and motivation of the employees, which will in turn harm the organization. In order to better protect against problems associated with stress, organizations need to understand it, know what can cause it, and find ways to help their employees handle it. Understanding stress and stressors will ensure that the organization stops the problems that can be caused by stress before they can negatively impact the organization.

## Stress and Roles

According to Jex (1998), a role is "a set of behaviors that are expected of a person occupying a particular position" (p. 10). Defined by Ilgen & Hollenbeck(1998), role ambiguity is "the level of uncertainty or lack of clarity surrounding expectations about a single role". Jex (1998) defines role conflict, quite simply, as competing role demands, and role ambiguity as "unclear role-related information." Jex (1998) uses new employees as an example. Individuals starting a new job may not have the knowledge and skills necessary to perform the job well. Unclear and outdated job descriptions, jobs that are difficult to define, and organizational and environmental change are also examples of conditions that may foster role ambiguity and in turn job stress.

There are two main types of role conflicts. The first is when an employee is given differing instructions on how one role should be performed. The second is when two or more roles compete for time and energy (Jex, 1998). Role ambiguity and role conflict are known sources of stress, which can decrease motivation, job performance and effort (Tubre & Collins, 2000).

The meta-analysis by Tubre and Collins (2000) supports the viewpoint that the stress caused by role problems negatively impacts job performance. Specifically, they found a true score correlation between role ambiguity and job performance of  $r = -.21$ . The results for role conflict and job performance yielded a correlation of  $r = -.07$ . Each of these results were moderated by job type (service, clerical/sales, professional/technical/manager, not classifiable) and rating type (objective, self, supervisor/peer). Tubre and Collins, 2000 acknowledge that their strong results were effected to an extent by the error associated with the perceived levels of ambiguity and performance, both of which were subjective and could inflate the scores on ambiguity and subsequently performance levels, but they support their findings. This suggests a relationship between anxiety and job performance, but that the relationship may be due to moderators, like job type.

#### Stress and Role Overload

Role overload is another source of stress in the workplace. There are two levels of role overload. Quantitative overload is experienced when the employee has the necessary skills to meet the demands of the role, but

there are too many roles demanding the employee's time (Jex, 1998). In this case, the employee needs to delegate some of the responsibility, or the employee needs more time to complete the tasks necessary. Qualitative overload, the second level, is experienced when the employee simply lacks the skills and knowledge necessary to complete the job (Jex, 1998).

Workload is another source of employee stress. Workload is effected by the amount of work required of an employee, the difficulty of the work, and individual perceptions of the workload (Jex, 1998). Objective measures of workload include counting the number of hours worked, how many projects need to be completed, and other tasks where one can count the output or performance. Subjective measures are defined by the perceptions of the employees (Jex, 1998). One employee, for example, may think that they are doing significantly more work than another, when, in fact, their workload is the same. It is difficult to measure subjective perceptions of workload, but one cannot ignore the effects of subjective perceptions on job performance and satisfaction.

Searle, Bright, and Bochner (1999) propose a 3-factor model of stress. Their three factors are job demands, job



control and social support, and they hypothesize that these three factors will influence stress levels. Specifically, Searle et al. (1999) hypothesize that a) high demand conditions will increase stress to higher levels than low demand conditions; b) low control conditions will produce more stress than high control conditions; c) high demand and low control will form an interaction that will produce greater stress; and d) support will interact with demand and/or control to reduce stress in conditions where high stress is expected. By demand, Searle et al. (1999) are referring to "the amount of effort and attention required to carry out one's job" (p. 268). This could include role ambiguity, which would require more effort for an individual to perform on their job. It could also include role overload, which would certainly increase the amount of effort or attention required to perform, since one would have to work on several different levels, and work on several different tasks at one time. Both of these scenarios could easily fit into the 3-factor model tested by Searle, et al. (1999).

Searle et al. (1999) used a mail-sorting task as their measure of performance, and they manipulated control and demand by controlling the pace of a computer task, and the

origin of the pacing (the participant or the computer). The support variable was controlled by manipulating the feedback and verbal interactions experienced between the participants and the experimenters.

They found support for their first hypothesis, that high demand increased stress, that low support also increased stress, and that control over the task had no effect on stress (Searle et al., 1999). They found that having social support tended to reduce the stress, and while it had a positive effect on self-reports of performance by the participants, it did not have a significant effect on actual performance (Searle et al., 1999). Searle et al. (1999) also found that as demands increased, the participants tried harder to perform their tasks, but their performance, both perceived and actual, suffered. A linear relationship between stress and performance is indicated. They did not find support for the hypothesized interaction.

Roles are not the only causes of stress in the workplace. Not having any control over the job can cause stress (Ivanevich & Matteson, 1980). When an employee lacks control of what assignments to do when, and how to budget time, they can feel stress.

Veloutsou and Panigyrakis (2004) performed a study on stress on consumer brand managers in Greece in order to examine the causes and effects of stress on workers. They hypothesized that "the higher the level of a) role conflict, b) role overload (role stress), the lesser the brand manager's perceived job performance" (p. 110). They also hypothesized that the managers who perceive their performance to be at adequate levels will be less likely to leave their jobs (Veloutsou & Panigyrakis, 2004). This is important because if stress does indeed effect perceived levels of performance, the employees may be pushed into leaving the position.

Veloutsou and Panigyrakis (2004) found that the higher the job satisfaction, the higher the perceived performance, which in turn decreased intentions to leave. They tie their findings to job satisfaction, but they felt that job performance was an important factor in the effects of stress. Job satisfaction is closely tied to stress, which may support the idea that too much stress will decrease job satisfaction to a point that causes performance to suffer, and increases intent to leave.

Veloutsou and Panigyrakis (2004) also found that role ambiguity had a negative effect on job satisfaction. The

implication here is that if role ambiguity can increase stress, the stress will have a negative impact on job satisfaction, which will in turn decrease perceived performance. They concluded that reducing stress will have a positive impact on performance, even if it is a perceived impact, and this will increase job satisfaction to a point where the employees will not be inclined to leave (Veloutsou & Panigyrakis, 2004). Although not specified in the study, their conclusion may indicate a linear relationship between job stress and the outcomes found in their study. Their solution to the problem of stress was for organizations to find a way to reduce stress as much as possible in the workplace so that the negative effects will be minimized (Veloutsou & Panigyrakis, 2004). They acknowledged that the subjective perceptions of their participants are a weakness of the study, but their findings contributed to the research on stress's effects on employees. The subjective nature of measuring stress can be an issue (e.g. Code & Langan-Fox, 2001). It is possible that the effect stress has on performance may vary between individuals due to differences in perception.

## The Relationship Between Stress and Performance

As pointed out earlier, many of the studies referenced focused on a linear relationship between stress, whether self-reported or actual, and the resulting performance. Research done on stress and performance in the past paints a different picture of the effects of stress and anxiety on performance. The problem is figuring out why this difference exists.

Worry and anxiety have been studied for their effects on performance since Yerkes-Dodson proposed the Yerkes-Dodson law in 1908. The Yerkes-Dodson law states that "the relationship between arousal and performance approximates to an inverted U, such that the optimum level of arousal is inversely related to task difficulty" (Matthews, 1985, p. 479).

The Yerkes-Dodson law focuses on arousal, which is a general term, but other studies have focused specifically on worry. Thompson, Webber, and Montgomery (2001) focused on worry as a personality trait, and more specifically on worriers and non-worriers. They suggested that worry was interchangeable with anxiety. Their definition of worry, borrowed from Davey (1994), and Tallis & Eysenk (1994), was

that "worry is intrusive, negative and disruptive thoughts which occur at a high emotional cost (p. 837).

The concern for Thompson et al (2001) was the negative effects that worry has on performance. They cited examples such as disrupted processing and slowed responses on categorization tasks (Thompson et al, 2001). The reasons cited for the negative effects on performance included overestimation of the probability of negative events, counteractive beliefs and expectations, which lead to negative self-expectations, reduced confidence, and poor performance. They found that following initial failure or poor performance, individuals who worry would perform worse and take longer to perform the task than non-worriers.

Paul and Eriksen (1963), focused on test anxiety and examinations. They found that there is a negative relationship between scores on the Test Anxiety Questionnaire (TAQ) and on scores on the Cooperative School and College Ability Test (SCAT). In other words, those who scored poorly on the SCAT blamed their anxiety levels for their poor scores (Paul & Eriksen, 1963).

Another explanation offered for the relationship found is that those with higher scores on the TAQ had decreased test performance due to the exam conditions, which seem to

increase anxiety (Paul & Eriksen, 1963). In support of this explanation, Paul & Eriksen (1963) reported that highly anxious participants displayed slightly improved performance when they were tested in a less stressful condition, compared to the participants with low anxiety, who scored slightly worse.

Paul and Eriksen (1963) decided to use the middle 70% of their scores to further analyze the relationships between anxiety and test scores due to a similar study done by Spielberger (1962). According to Paul and Eriksen (1963), Spielberger found the middle range scores showed a significant relationship between anxiety and test scores. Suspecting that the broad range of ability may be effecting the data, a follow-up analysis was performed. Paul and Eriksen (1963) used the middle scores for their second ANOVA, and found a significant interaction between anxiety level and performance on the two tests (Paul & Eriksen, 1963).

Cassady and Johnson (2002) performed a study that focused on the test anxiety and the effects on SAT scores. They found that students with high anxiety levels score significantly lower than students with low and moderate levels of anxiety. Cassady and Johnson (2002) pointed out

that those who suffer from high levels of anxiety when taking high-stakes tests are at a distinct disadvantage when trying to get into colleges that emphasize high SAT scores. This has implications not only for students trying to get into colleges, but for their future as students. Scoring low on the SAT does not mean that the students are not as intelligent as those who do score at acceptable levels, but they will not get the opportunity to prove this.

Probst (2002) found that employees faced with job insecurity due to impending layoffs will have increased performance compared to employees who were not facing layoffs. Probst (2002) also found that while productivity increased, work quality significantly dropped. This study supports the empirical research that indicates an increase in performance during the early stages of layoffs. The initial change in performance in this study was upward. The question is why this upward trend was found here and not in other studies? What caused the increase in performance in early stages and the subsequent decrease later?

Wilson (1973) introduced a new facet to performance, which is drive variability. According to Wilson (1973),



drive is what causes motivation, and drive can be effected by environmental factors. The inverted-U, or Yerkes-Dodson law, "relates efficiency of task performance to strength of drive, whether the origin of drive be internal (participant-based) or external (environmental-based)" (p.363).

Some of the applied literature (i.e., Brockner et al (1987), Cassady & Johnson (2002), Searle et al (1999), and Tubre & Collins (2000)) suggest linear relationships between stressors and job performance. Other studies (i.e. Jamal (1984), Probst (2002)), however, suggest interactions of job performance with job stressors, and other variables, such as job attitudes. One way to explain the inconsistencies found in the literature may be through procedural justice and the motivation of the employees.

#### Procedural Justice

Several of the studies on stress and work roles and overload mention control and fairness. The findings of Brockner et al (1987), as stated earlier, focused on the demotivation of layoff survivors, which was higher when those laid off were uncompensated. This raises the issue of procedural justice in the workplace. The level of stress experienced by individuals when they have some

perceived control in decisions and outcomes becomes a factor when organizations are trying to understand stress and how to help their employees handle it and continue to be productive.

Procedural justice is based on the assumption that money is not the only motivation for employees. The perception of outcome fairness is tempered by concern for the fairness of the processes leading to outcomes, such as pay and promotions (Gilland & Chan, 2002). According to Gilland & Chan, "Procedural justice typically addresses formal company procedures, whereas interactional justice addresses manager communication and interpersonal style" (pg. 146). They also report that justice perceptions effect job satisfaction, trust in the organization and management, and turnover intentions (Gilland & Chan, 2002).

Barling & Phillips (1992) state that employees who believe that they are being treated fairly will have more positive views of the organization, and their organizational citizenship behaviors will be increased. Their 1992 study found that perceptions of procedural justice have more of an effect on organizational attitudes and outcomes such as withdrawal behaviors, commitment to the organization, and trust in, than interactional justice

or distributive justice. No effect sizes were reported in their study. They believe that their findings support the idea that the fairness of formal procedures has more of an effect on trust in management than does interactional justice, and that procedural justice is more useful in predicting performance than distributive justice (Barling & Phillips, 1992).

Hendrix, Robbins, Miller and Summers (1998) performed a study in 1998 that looked at the effects of justice on predicting turnover. They identified the two categories of procedural justice. The first is formal, which focuses on policies, actions, and procedures used to make promotion decisions, performance reviews, and pay decisions, which effect all employees. The second category is interpersonal treatment, which "focuses on the informal actions by someone in a position of authority over the employee" (p. 613).

As Hendrix et al (1998) pointed out, justice perceptions effect job satisfaction and the commitment of the employee, which in turn influences the turnover rate of the organization. They believed that being treated justly by the organization creates feelings of obligation in the employee, which will decrease their withdrawal behaviors,

and ultimately turnover. They also believe that perceived justice will directly effect performance (Hendrix, et al, 1998).

Hendrix et al (1998) used confirmatory factor analysis to test their model suggesting paths predicting causes of performance, from procedural and distributive justice, to job satisfaction, to commitment. They found that "both procedural and distributive justice influence intrinsic and extrinsic job satisfaction" (p. 8). Their model fit the data. In their study, they found interpersonal treatment to be more related to intrinsic job satisfaction, which was linked to commitment, turnover intentions, and attendance. This finding was also linked to motivation to perform in groups.

Schappe's 1998 study was consistent with the Hendrix et al (1998) findings. Although his results found distributive justice to be highly correlated with job satisfaction, Schappe (1998) also found that distributive justice was a better predictor of job satisfaction than structural, or interpersonal justice. He hypothesized that this may be due to the manner in which those who make decisions treat the employees, which is more important than

the decisions being made, and that it shows that the organization values the employee.

An important cause of fairness perceptions is the participation of the employees. When employees are allowed to have some say or input in the decisions being made, and when they are given current information, they are more likely to see the resulting decisions and the processes leading to them as fair, regardless of whether or not the decisions are positive (Williams, 1999). Williams (1999) believed that those who have a voice would be more likely to perceive processes as fair than those with no voice in decisions, and that these individuals would perform higher than those with no voice. He also believed that fairness perceptions would increase with explanations about the decisions being made, and that those who received an explanation would perform higher than those who did not. His study found that those in the procedurally just condition of his experiment displayed better performance than those in other conditions. He also found that giving explanations for procedures had a positive impact on performance, although giving participants a voice did not (Williams, 1999).

Konovsky and Cropanzano (1991) approached the question of procedural justice from the viewpoint of drug testing in the workplace. Because of the negative impacts on profit and performance that drug use has in the work place, testing of employees has increased. They hypothesized that by increasing procedural justice perceptions, trust in management and trust, commitment to, and overall evaluation of the organization would increase. They also hypothesized that job satisfaction would be more related to outcome fairness than to procedural justice (Konovsky & Cropanzano, 1991).

Konovsky and Cropanzano (1991) found that perceptions of procedural justice impacted all of the hypothesized employee attitudes. In other words, if the drug testing procedure is perceived to be fair by the employees, they will have higher job satisfaction, organizational trust, and commitment, regardless of the outcomes of the test itself. Procedural justice was not significantly linked to outcome fairness.

The main question to ask when dealing with procedural justice is why it makes a difference in the performance, job satisfaction, and the commitment to the organization of the employees. Why does fairness in the workplace matter

to employees? This suggests that the employees are more motivated to work for an organization that treats them fairly than they would be for an organization that does not. Employees will be more committed to an organization that cares about their well-being, and they will in turn, be more productive if they are motivated by fairness and trust in the organization.

### Layoffs, Stress, and Performance

Layoffs are stressful situations by their nature. Once an organization announces that layoffs are going to happen, people in the organization will immediately begin to fear for their own jobs. Many may begin to question whether or not the layoffs are really necessary, or if it is just a way for the organization to cut costs (Brockner et al, 1987). Some may worry about losing friends they have in the organization. They may also feel guilt for having survived while others did not. They may feel betrayed by the organization if the management does not help those laid off find a new job. They may feel that management needs to communicate more with the employees in order for the employees to feel better about a situation that they cannot control. All of these feelings contribute to the stress

caused by role and work overload.

As seen earlier, some of the past, applied literature indicates a linear relationship between stress levels and performance, and some of the past literature suggests an interaction between job stressors and another variable, such as workload, on job performance. Konovsky and Cropanzano (1991) believed that when employees perceive higher outcome fairness, they respond with greater productivity than do participants experiencing low outcome fairness.

This is an important relationship, but this thesis tested the argument that there is another important factor to this relationship, workload, and that workload interacts with job performance. This thesis tested the hypothesis that workload is a determining factor in the change in job performance. Much of the applied literature has included workload, but has not included the motivation of the employees to perform as a factor in their job performance. More specifically, the hypotheses were:

*Hypothesis 1: The participants treated unfairly will show a greater decrease in performance between Time 1 and Time 2 than will participants treated fairly.*



*Hypothesis 2: The participants who were in the unfair/overload group will show a greater decrease in performance between Time 1 and Time 2 than will the participants who were in the unfair/no overload group.*

*Hypothesis 3: The participants who were in the fair/overload group will show a greater decrease in performance between Time 1 and Time 2 than will the participants in the fair/no overload group.*

## CHAPTER TWO

### METHODOLOGY

#### Participants

The participants were sampled from the population of undergraduate students at California State University, San Bernardino. Sign up sheets were used to gain the participation from volunteers. Based on Lenth's (2005) power and sample size software, 120 students, 30 per group, were needed for the experiment in order to obtain a medium effect size of .75 with a standard deviation of .75 within each group, and for a power level of  $\beta \geq .08$ . There were 132 participants in all, 33 per group.

#### Design

The design was a 2 (overload, no overload) x 2 (fair, unfair) between subjects ANOVA. All procedures and measures were piloted before data collection. The first independent variable was work overload and no overload. The second independent variable was procedural justice, fair or unfair. The dependent variable was based on a before manipulation (Time 1) and after manipulation (Time 2) measure of performance. The proofreading documents were scored both before and after the manipulation, calculating

how many errors were found. The percent change in performance between Time 1 and Time 2 was measured, and this calculation was used as the dependent variable.

Four participants were brought into the experiment waiting room where they were given the Saucier (1994) Mini-Marker personality inventory to complete. Once they finished the inventory, the experimenter left the room to "score" them. After scoring the inventories, the experimenter returned, and "paired" the students based on similarities found in the personality test. These pairings were done randomly. This pairing process was a necessary deception for the overload condition.

In the procedurally fair condition, the student was told when their matched participant was "laid off", or dismissed, and the reason explained. The reason for dismissal was scheduling problems with the rooms. In the procedurally unfair condition, the students were told only that their matched participant, who was working in another room, had to be dismissed, and that they would not get credit for their participation. No explanation was given.

## Materials

The proofreading task that the students did was completed using paper documents and highlighter pens. The task included some combination of two documents. The documents were selected from a group of four 5-page documents created by the experimenter, and a group of four 1-page documents created by Dr. Jason Reimer, California State University, San Bernardino. The students proofread the documents for mistakes. Each document created by the experimenter had 15 mistakes, including grammatical errors, spelling errors, and sentence fragments that need to be corrected. The documents created by Dr. Reimer each had 10 spelling errors. These documents were combined to create one set, with 40 mistakes. The students were given 5 minutes per session to complete the task. Each student was given a different set of documents to proofread. The documents were given one at a time so that the first document could be collected and scored before the second was given, along with the manipulation.

The students were told that each proofreading assignment were each designed to test a different cognitive function. The students were told that two sets of documents were being tested simultaneously, and that each

set of documents tested a different function. They were told that data is needed from all of the documents to accurately measure the cognitive function. They were then given the Saucier (1994) Mini-Marker personality inventory to complete.

After the participants corrected both sets of proofreading documents, they were given an exit survey. The survey included two groups of questions dealing with the manipulations, and demographic information. The demographic questions included the participant's age and gender. The participants were asked if they had ever experienced being laid off. This question was to control for possible previous experience. All questions on the survey, except for the demographic questions, were responded to using a 5-point Likert type rating scale. The low score, 1, represented the low/negative score (i.e. not fair at all, I felt no stress, my performance was poor, etc.). Five represented high/positive scores (i.e., extremely fair, I felt a high amount of stress, my performance was high, etc.).

The first set of questions focused on the perceived fairness of the procedures. The first question asked the student to rate the fairness of the procedures used when

their partner was dismissed. They were asked if they had attempted to ask any questions about why the second participant was being dismissed. This was a yes/no question. The participants were also asked whether or not they were concerned about receiving their own payment for participating in the experiment. An example of one of the survey questions measuring procedural justice is "Were you concerned about receiving extra credit for your participation after the second participant was dismissed?"

The second set of questions involved the sense of overload felt by the participants. They were asked whether or not they felt that they had adequate time to finish their own task. They were then asked if they felt that they had adequate time to finish once they were given the other participant's work. They were asked to rate their performance both before and after they were given the second participant's work. They were also asked how much stress they felt when they were given the other participant's work, and how they would rate their performance level before and after they were given the extra work. An example of a survey question measuring work overload is "Did you feel that you had adequate time to

complete your task before the second participant was dismissed?"

Finally, the participants were asked to rate their commitment to completing the task after the second participant was dismissed in order to find out if their motivation decreased. They were also asked to rate their performance before and then after their "matched pair" is dismissed. An example of a survey question measuring performance and motivation is "How would you rate your performance level before the second participant was dismissed?"

### Procedure

The students in the study were asked to sign up through the research board outside of the psychology department, or through classroom recruitment to participate. Each session consisted of four students. The assignment to conditions, either fair or unfair, or overload or no overload, was random for each of the sessions. The study was conducted on the CSUSB campus. When the students entered the lab, they were given an informed consent to sign before proceeding by the experimenter. After the consent was signed, the students

were told that they would be participating in a cognitive task. They were told that we all operate using cognitive heuristics, which allow us to find mistakes in writing. They were told that due to time constraints, the task would be split up among the students, and that they would be paired based on similar scores on a personality inventory.

They were also told that the purpose of the pairing was to split the work in half so that no one has to do too much. Once the participants filled out the personality inventory and were paired, they individually completed a proofreading task. As the participants were not actually being matched in any way, the inventory was truly scored, and the pairs were made randomly. They were told that each pair of matched participants would be completing the documents that test a specific cognitive heuristic. The students were informed that the number of errors detected by the four participants in 5 minutes per document would be recorded. The students were given a trial document to proofread so that they could become familiar with the format and ask questions about the process if necessary. Once paired, the participants were assigned to one of four experimentation rooms and instructed to look for the grammatical, spelling, and punctuation errors in the



documents they were given. They were told that the reason for working alone is that studies show that individuals perform better on proofreading tasks if they are not distracted, and that having other individuals in the same room can be a distraction. Once the doors were shut and the participants were isolated, the timed session began, and the participants began to proofread, highlighting the mistakes as they found them.

After 5 minutes, the experimenter collected the first documents from the participants, and gave them the second. After 2 minutes, the experimenter individually informed the participants that their matched participant had to be let go. In the fair condition, the participant got an explanation as to why the second participant was dismissed, and they were reminded that the goal was to find as many errors as possible. The participant was told that there was a scheduling problem, and that the second room could no longer be used.

The unfair condition followed the same steps as the fair condition, but the participants were not given an explanation as to why the second participant was being dismissed. The students were also told that since the student could not complete the task, they would not receive

credit for the experiment. No explanations were given. Any questions the participants asked about the dismissal were answered with "I'm sorry, but I can't explain at this time" or some excuse to that effect, and they were asked to please finish the task. In the overload condition, they were given the documents that the second participants could not "complete", and were told that all of the data was needed for the experiment, and that they would now have to complete the entire task alone.

The overload participants were randomly assigned. Half of the participants in each of the justice conditions were given the overload manipulation, and the other half were not. In order to manipulate work overload, the participants were given the documents that the other student "started", complete with some errors found, and they were asked to finish them, as the data from all of the documents was important. The participants were asked to finish the task, their documents plus the new documents, in the time allotted, 5 minutes. After time was up, the participants were then asked to fill out the exit survey. The participants not receiving the overload manipulation proofread only their documents, and they were given a survey at the end of the experiment.

After completing the proofreading tasks, the participants were asked to fill out an exit survey, which asked for some demographic information and rated perceived performance, procedural justice and work overload during the experiment, and they were then debriefed.

The debriefing included the purpose of the study, which was to investigate changes in behavior based on the stress caused by the fairness or unfairness of layoff conditions. The students were then given whatever payment (i.e. class credit slip) they were promised. After the surveys were collected, the mistakes on each document at each stage for each student were added and recorded. The percentage found for each time and the difference between Times one and two was calculated. These scores, along with the information from the surveys, was entered into SPSS and evaluated.

## CHAPTER THREE

### RESULTS

#### Testing Assumptions

Before performing the analyses, the data were screened for univariate outliers, skewness, kurtosis, normality, homoscedasticity, and missing data. Given that the cell sizes were equal, the assumption of normality was met. The assumption of homogeneity of within group variance was also met, as the within cell variance was no greater than a 2:1 ratio. The assumption of independence of errors was met, as the participants were randomly assigned to conditions, there were no couples involved in the study, and even though the participants were told that they were being paired with another participant, there were no actual pairs.

Using  $z \geq 3.3$  as an indication of significant skew and kurtosis, the skewness and kurtosis of the distribution of percent change in errors found was examined. The skewness and kurtosis both fell below the criterion level. When screening for univariate outliers a  $z \geq 3.3$  was used as an indication of a value being a significant outlier. No

univariate outliers were found. A missing value analysis found no missing data.

A critical value of  $z \geq 3.3$  was used to test skewness, kurtosis, and for outliers in the distributions for the manipulation check items. The distribution for the item "were you committed to completing the task after the second participant was dismissed" was significantly skewed ( $z = -8.090$ ), and significantly kurtotic ( $z = 7.862$ ). There was one univariate outlier found in the distribution. The participant stated that he/she had no desire to complete the proofreading task after the second participant was dismissed ( $z = -4.358$ ). This case was removed from the data set. After deleting this case, the skewness decreased to  $z = -6.863$ , and the kurtosis decreased to  $z = 4.464$ .

Logarithmic, square root, and inverse transformations did not significantly improve the skewness and kurtosis of this item, so it was not transformed. Scatterplots and residuals were examined to test the manipulation checks for homoscedasticity, and there was evidence that this assumption was met. Mahalanobis's distance was calculated to test for multivariate outliers, and none were found.

### Manipulation Checks

Independent t-tests were used to compare the means for the two manipulation check measures. The means for the fair and unfair groups were compared on the question "rate the overall fairness of the procedures when your partner was asked to leave." The t-test was not significant,  $t(129) = .729$ ,  $p = .16$ , which indicates that the fairness manipulation was not effective. The means for the overload and no overload groups were compared on the question "did you feel there was adequate time to complete the task when you were given extra work when the second participant was dismissed?" This t-test was significant,  $t(130) = -4.595$ ,  $p < .05$ , which indicates that the overload manipulation was effective.

### Hypothesis One

Planned orthogonal comparisons were performed to examine the relationships between the fair/overload, fair/no overload, unfair/overload, and unfair/no overload conditions. The dependent variable was the percent of change in performance between Time 1 and Time 2 on the proofreading task.

There was not a significant mean difference in change of performance on the proofreading task between the combined fair/overload and fair/no overload conditions and the combined unfair/overload and unfair/no overload conditions ( $F(1, 128) = .053, p > .05, \eta^2 = .0004$ ). The mean percent change in performance for the combined fair/overload and fair/no overload groups was a 1.687% decrease between Time 1 and Time 2. The mean change in performance for the combined unfair/overload and unfair/no overload groups was a 0.824% decrease in the percent of errors found on the proofreading documents between Time 1 and Time 2.

#### Hypothesis Two

There was a significant mean difference in change of performance on the proofreading task between the unfair/overload and the unfair/no overload condition,  $F(1, 128) = 8.329, p < .05, \eta^2 = .060$ . The mean change in performance for the unfair/overload condition was a 8.497% decrease in the percent of errors found on the proofreading documents between Time 1 and Time 2. The mean change in performance for the unfair/no overload condition was a

6.848% increase in the percent of errors found on the proofreading document between Time 1 and Time 2.

### Hypothesis Three

There was not a significant mean difference in change of performance on the proofreading task between the fair/overload and the fair/no overload conditions,  $F(1, 128) = 2.165$ ,  $p > .05$ ,  $\eta^2 = .016$ . The mean change in performance for the fair/overload condition was a 5.598% decrease in the percent of errors found in the proofreading document between Time 1 and Time 2. The mean change in performance for the fair/no overload condition was a 2.225% increase in the percent of errors found in the proofreading documents between Time 1 and Time 2.

### Regression Analysis

A sequential regression analysis was performed to examine the relationship between the remaining items on the Exit Survey and the performance variable. Items were grouped based on the category they were in on the Exit Survey. The first step was a control of past layoff experience. The second step added procedural justice. The



third step added work overload. The fourth step added performance and motivation.

The first step of the regression included the variable "have you had experience being laid off from an organization?" This question did not significantly predict the rate of performance on the proofreading task,  $R = .011$ ,  $F(1,129) = .014$ ,  $p = .905$ . The second step of the regression added the variables "were you concerned about receiving extra credit for your participation after the second participant was dismissed?", and "did you attempt to ask for an explanation when the participant was dismissed?". These variables did not significantly increase the ability to predict the performance of the participants,  $R^2 \text{ change} = .007$ ,  $F(2,127) = .452$ ,  $p = .638$ . The next step added the variables "did you feel you had adequate time to complete the task before the participant was dismissed?" and "how much stress did you feel after the second participant was dismissed?". These variables did not significantly increase the ability to predict the change in performance,  $R^2 \text{ change} = .014$ ,  $F(2,125) = .911$ ,  $p = .405$ . The final step of the regression added "how committed to completing the task were you after the second participant was dismissed?", "rate your performance level before the

second participant was dismissed", and "rate your performance level after the second participant was dismissed". These variables significantly increased the ability to predict the performance of the participants,  $R^2$  change = .081,  $F(3,122) = 3.658$ ,  $p < .05$ . The variable "rate your performance level after the second participant was dismissed" was the only variable to significantly predict performance in the model,  $t(122) = 2.340$ ,  $p < .05$ .

## CHAPTER FOUR

### DISCUSSION

The data did not support Hypothesis 1 that there would be a significant difference in performance between groups with different levels of procedural justice. The data did support Hypothesis 2 that there would be a significant difference in the change in performance between groups when procedural justice is unfair, and workload was tested. The data did not support Hypothesis 3 that there would a significant difference in the change in performance when procedural justice was fair and workload manipulated. There are several possible reasons for the unexpected results.

The initial reaction of many of the participants upon hearing that they would be separated when they did the proofreading task was to ask what the point was of matching if they weren't going to be working with their partner. They may not have felt a real link between themselves and their partners since they were not in the same room, even with the explanation about distractions negatively effecting performance. Often it was the males who questioned the reasoning behind the match if they would not

be working in the same room. It is possible that the females had the same doubts but did not voice them. No gender tests were performed, but they may be of interest in future research.

Several participants questioned the necessity of the matching personality test. They did not see the point of matching the participants at all, and they did not know why they needed to know who their match was if they wouldn't be in the same room. In these cases, they did not seem to care about the outcome of their partners, good or bad. If they did not care and they felt no stress or anxiety about the treatment of their partner, as measured in the exit survey, their performance would not have been affected by fairness. These individuals may not have performed well given more work simply because there was more work involved, and no more time in which to complete the tasks assigned.

Another possible reason for the results lack of support for Hypothesis 1 and 3 is that reading speed and skill were not accounted for. Some participants mentioned that their reading skills were not the best and that they were afraid that this would effect their performance. Some participants expressed that English was their second

language and that they expected it to negatively effect their performance. There may have been more participants with these concerns who did not voice them. In these cases, the fairness of procedures may not have been a concern for the participants at all, but the overload may have been, if they felt that they would not have a chance to finish the task in the given time.

Many participants indicated on the Exit Survey that they did not worry about receiving their credit after their matched participant was dismissed. As shown in the regression analysis, this variable does not significantly predict performance, indicating that concern over fairness was not an issue. Some participants expressed after the debriefing that they did not care what happened in the experiment as long as they received their credit. They mentioned that since the Informed Consent stated that credit would be given to all participants, they did not believe the deception in the first place. Some participants stated that they could hear the experimenter talking to the participants in the other rooms. Therefore, performance may have decreased once given extra work, not because the participants were concerned about the fairness. This conclusion is supported by the results of the

manipulation checks. The t-test performed to test the fairness manipulation was not significant, whereas the t-test performed to test the overload manipulation was. This, along with the results from the planned comparisons, shows that performance was indeed affected once the participants were given extra work (as indicated in previous overload research), but that the experiment failed to significantly manipulate fairness.

One participant vocally questioned why an I/O student was doing research on cognitive heuristics. This participant questioned the experiment from the very start. Other participants may have felt the same way, but chose not to say anything to the experimenter. If there were other participants suspicious of the experiment for this reason, they may not have believed the manipulations, and fairness would not have mattered.

Another possible reason for the outcome of Hypothesis 3 may lie in the tasks themselves. Spelling, punctuation, and grammar were the mistakes that the participants were supposed to find. The problem was that many students highlighted words that were spelled correctly, and grammatical and punctuation "errors" that were not errors. Words that were misspelled or used in the wrong context

were missed, and incorrect grammar and punctuation were often overlooked. Therefore, participants may not have done as well on the tasks as they rated on the Exit Survey.

If a future study is done on this topic there are several changes that could be made. First, a better way to manipulate fairness needs to be found. Having the participants matched with a confederate of the study who will work in the same room with them and then be let go may address the issue of participants not feeling a connection with their matched participant. If they feel a connection with the person being let go, especially if the circumstances are unfair, they may feel more anxiety about their own chances of being let go without credit. If they are working in the same room, they may feel a connection and more anxiety when the person is let go, and feel that the situation is indeed unfair. Another suggestion would be to have the treatment rooms farther apart. If the participants can hear what is being said in the room next to them, they will not believe the deception. Another suggestion would be to have an individual who is not affiliated with the I/O school to do the research. That way, no one will question why such an individual is studying something outside of his or her discipline.

Another suggestion is to make the documents being proofread have some connection with I/O psychology, rather than something outside of I/O, as cognitive heuristics was. A good example would be to have the participants proofreading job applications, or some other document related to the school of study. A good example would be to have the participants proofreading job applications, or some other document related to the school of study. Making the proofreading tasks more uniform could be another way to improve the study. Rather than punctuation, spelling and grammar mistakes, it may be better for only spelling to be the mistakes to find on the proofreading tasks. Another suggestion would be to try and control for reading level and English comprehension.

Another concern is the participants themselves. Many stated that they did not care about the second participant, or the experiment period, and were just there for their credit slip. The motivation for their participation had an impact on the results of the study. If participants could be motivated in another way, possibly with money gift certificates for lunch, then perhaps the outcomes would be different.



### Further Research

Given that the hypothesis that the performance between the unfair/overload and the unfair/no overload groups would differ significantly was supported, I believe that further research is warranted. As stated above, there are several confounds to account for. There are many ways that this study could be modified to improve the conditions. If they are, I believe that the results of a similar study could improve.

## APPENDIX A

### TABLES

Table 1  
Univariate Analysis of Variance for Planned Comparisons

Source	df	F	$\eta^2$
fair, overload and fair, no overload vs. unfair, overload and unfair, no overload	1	0.05299	0.0003825
Unfair, overload vs. unfair, no overload	1	8.32857 *	0.06011
fair, overload vs. fair, no overload	1	2.16545	0.01563
Error	3		
Error-from full ANOVA	128		
Total	131		

\* = significant at the  $p < .05$  level

Table 2  
Overall Univariate Analysis of Variance

Source	df	F	$\eta^2$
overload	1	9.494 *	0.06852
fair	1	0.053	0.000038
overload*fair	1	1.001	0.00722
Error	128		
Total	131		

\* = significant at the  $p < .05$  level

Table 3  
Descriptive Statistics for Univariate Analysis of Variance

Variable	N	Means	Standard Dev.
fair, overload	33	-5.598	13.169
fair, no overload	33	-8.497	23.671
unfair, overload	33	2.225	20.726
unfair, no overload	33	6.848	26.512
Total	132		

Table 4  
Descriptive Statistics and Results for T-Tests

Variable	Overload t	df	Significance
Have you had experience being laid off from an organization?	-0.914	126	0.362
Rate the overall fairness of procedures when partner asked to leave.	-2.463	129	.015*
Attempt to ask for explanation when participant dismissed?	-0.419	130	0.624
Concerned about receiving credit for participation after other participant dismissed?	0.615	130	0.540
Adequate time to complete task before participant dismissed?	-0.940	130	0.349
Adequate time to complete task when given extra work after second participant dismissed?	-4.595	130	.000*
How much stress did you feel after second participant was dismissed?	1.359	130	0.177
Rate performance before second participant dismissed?	-1.074	130	0.285
Rate performance after the second participant was dismissed?	-5.742	130	.000*
How committed were you to completing task after the second participant was dismissed?	-1.363	130	0.175

\*= significant at the  $p < .05$  level

Table 5  
Descriptive Statistics and Results for T-Tests

Variable	Fairness t	df	Significance
Have you had experience being laid off from an organization?	-1.017	126	0.311
Rate the overall fairness of procedures when partner asked to leave.	0.729	129	0.467
Attempt to ask for explanation when participant dismissed?	-0.491	130	0.624
Concerned about receiving credit for participation after other participant dismissed?	-1.002	130	0.318
Adequate time to complete task before participant dismissed?	-0.312	130	0.755
Adequate time to complete task when given extra work after second participant dismissed?	-0.360	130	0.720
How much stress did you feel after second participant was dismissed?	1.120	130	0.265
Rate performance before second participant dismissed?	-0.178	130	0.859
Rate performance after the second participant was dismissed?	-0.670	130	0.504
How committed were you to completing task after the second participant was dismissed?	-0.940	130	0.349

APPENDIX B  
INFORMED CONSENT FORM



**CALIFORNIA STATE UNIVERSITY  
SAN BERNARDINO**

5500 University Parkway, San Bernardino, CA 92407-2397

**COLLEGE OF SOCIAL AND  
BEHAVIORAL SCIENCES**  
Department of Psychology  
(909) 880-5579  
fax: (909) 880-7003

### INFORMED CONSENT

You are invited to participate in a study designed to investigate cognitive heuristics used during proofreading tasks. This study is being conducted by Seana M. Nufiez under the supervision of Dr. Janelle Gilbert, Professor of Industrial/Organizational Psychology. This study has been approved by the Department of Psychology Institutional Review Board Sub-Committee of the California State University, San Bernardino, and a copy of the official Psychology IRB stamp of approval should appear somewhere on this consent form.

In this study you will be asked to proofread two 5-page documents. Along with another participant whom you will be matched, you will complete the proofreading tasks that will be split between you. The initial personality inventory should take approximately 10 minutes to complete, the proofreading tasks take approximately 5 minutes each, and a short exit survey should take approximately 10 minutes to complete. In all, this experiment should take approximately 30 to 45 minutes. All of your responses will be held in the strictest of confidence by the researchers. Your name will not be reported with your responses. All data will be reported in group form only. You may receive the group results of this study upon completion on December 1, 2005 at the office of Dr. Janelle Gilbert.

This study involves no risks beyond those routinely encountered in daily life, nor any direct benefits to you as a participant other than extra credit for one of your psychology courses. Your participation in this study is voluntary. You are free not to answer any questions and withdraw at any time during this study without penalty. When you have completed the exit survey, you will receive a debriefing statement describing the study in more detail and, at your instructor's discretion, you may receive a slip for 4 units of extra credit. In order to ensure to validity of the study, we ask that you not discuss this study with other students or participants.

If you have any questions or concerns about this study, please feel free to contact Dr. Janelle Gilbert 909-880-5587.

By placing a check mark in the box below, I acknowledge that I have been informed of, and that I understand, the nature and purpose of this study, and I freely consent to participate. I also acknowledge that I am at least 18 years of age.

Place a check mark here ☐

Today's date: \_\_\_\_\_

CALIFORNIA STATE UNIVERSITY, SAN BERNARDINO  
PSYCHOLOGY INSTITUTIONAL REVIEW BOARD SUB-COMMITTEE  
APPROVED 5/25/05 VOID AFTER 5/28/06  
DATE 11/25/05 CHAIR *[Signature]*

*The California State University*  
Bakersfield • Channel Islands • Chico • Dominguez Hills • Fresno • Fullerton • Hayward • Humboldt • Long Beach • Los Angeles • Maritime Academy  
Monterey Bay • Northridge • Pomona • Sacramento • San Bernardino • San Diego • San Francisco • San Jose • San Luis Obispo • San Marcos • Sonoma • Stanislaus



APPENDIX C  
MINI-MARKER  
PERSONALITY INVENTORY

## The 40-Item Mini-Marker Set

### How Accurately Can You Describe Yourself?

Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you see yourself at the present time, not as you wish to be in the future. Describe yourself as you are generally or typically, as compared with other persons you know of the same sex and of roughly your same age.

Before each trait, please write a number indicating how accurately that trait describes you, using the following rating scale:

<i>Inaccurate</i>				?	<i>Accurate</i>			
<i>Extremely</i>	<i>Very</i>	<i>Moderately</i>	<i>Slightly</i>		<i>Slightly</i>	<i>Moderately</i>	<i>Very</i>	<i>Extremely</i>
<i>1</i>	<i>2</i>	<i>3</i>	<i>4</i>	<i>5</i>	<i>6</i>	<i>7</i>	<i>8</i>	<i>9</i>
___ Bashful		___ Energetic			___ Moody		___ Systematic	
___ Bold		___ Envious			___ Organized		___ Talkative	
___ Careless		___ Extraverted			___ Philosophical		___ Temperamental	
___ Cold		___ Fretful			___ Practical		___ Touchy	
___ Complex		___ Harsh			___ Quiet		___ Uncreative	
___ Cooperative		___ Imaginative			___ Relaxed		___ Unenvious	
___ Creative		___ Inefficient			___ Rude		___ Unintellectual	
___ Deep		___ Intellectual			___ Shy		___ Unsympathetic	
___ Disorganized		___ Jealous			___ Sloppy		___ Warm	
___ Efficient		___ Kind			___ Sympathetic		___ Withdrawn	

APPENDIX D  
PROOFREADING MEASURES

### Sample Proofreading Document

William Butler Yeats has a style discernable from others. He utilizes techniques not necessarily popular by the poets in his time period, New Directions. Knowing this, one can read his work and see the similarities. To prove this, one can analyze the use of rhythm, allusions, theme, and rhyme in his work.

Many authors after the Romantic Period rejected the old styles of writing. Yeats was a rare exception. For example, the rhythm in the vast majority of his work is iambic pentameter, a rhythm used most often during the Renaissance. Lines 1-4 in "Among School Children" demonstrate this:

I walk through the long schoolroom questioning,  
A kind old nun in a white hood replies  
The children learn to cipher and to sing,  
To study reading-books and history.

In "When You are Old", iambic pentameter is used, as seen in lines 5-8:

How many loved your moments of glad grace,  
And loved your beauty with love false or true,

But one man loved the pilgrim soul in you,  
And loved the sorrows of your changing face.

“Leda and the Swan” uses iambic pentameter, as seen in lines 5-8:

How can those terrified vague fingers push  
The feathered glory from her loosening thighs?  
And how can body laid in that white rush  
But feel the strange heart beating where it lies?

“Sailing to Byzantium” uses iambic pentameter, as seen in lines 1-4:

That is no country for old men. The young  
In one another’s arms, birds in the trees  
Those dying generations-at their song  
The salmon falls, the mackerel-crowded seas.

“Adam’s Curse” uses iambic pentameter, as seen in lines 21-24:

I said “it’s certain there is no fine thing  
Since Adam’s fall but needs much laboring  
There have been lovers who thought love should be  
So much compounded of high courtesy.

These are solid examples of Yeats’s fondness of iambic pentameter.

Since he used it in most of his writing, it makes his work distinctive.

Yeats uses allusions to add flavor to his work. Illusions are references to other events and people. Yeats uses allusions to Greek mythology and figures. "Among School Children" is full of allusions to Greek figures and myths. Line 9 states "I dream of a Ledaean body, bent". Leda was a young girl who as seduced by Zeus, who was disguised as a swan at the time. She was the mother of Apollo and Artemis. Line 15 says "Or else, to alter Plato's parable". Plato was a Greek philosopher and his parable is the theory that men and Women are halves of a former whole. Line 43 states "Soldier Aristotle played the taws". Aristotle was another Greek philosopher. Line 45 says "World-famous golden-thighed Pythagoras". Pythagoras was a Greek mathematician who came up with the Pythagorean Theorem, and who calculated the laws of harmony. "Leda and the Swan" is about the myth of Leda and Zeus, Greek king of the gods. Lines 1-4 are the basic story:

A sudden blow: The great wings beating still  
Above the staggering girl, her thighs caressed  
By the duck webs, her nape caught in his bill,  
He holds her helpless breast upon his breast.

These are unusual allusions, supporting the fact that Yeats uses this unique style in his writing, and that it is a distinctive trait of his work.

Yeats has a recurring theme in “Among School Children” and “Leda and the Swan”. The theme is protecting our daughters from those who would abuse them.

In “Among School Children”, the reference to Leda and lines 33-40 all emphasize the importance of protecting our daughters:

What youthful mother, a shape upon her lap  
Honey of generation had betrayed,  
And that must sleep, shriek, struggle to escape  
As recollection or the drug decide,  
Would think her son, did she but see that shape  
With sixty or more winters on its head,  
A compensation for the pang of his birth,  
Or the uncertainty of his setting forth?

In “Leda and the Swan”, lines 5-8 support the theme:

How can those terrified vague fingers push  
The feathered glory from her loosening thighs?

And how can body, laid in that white rush,

But feel the strange heart beating where it lies?

Yeats has created his own style by having a theme pop up in separate poems.

Many poets use rhyme in their work. Sonnets are one type of rhyme scheme, made famous by Shakespeare. Yeats used a simple rhyme scheme in his work. In his poem "Friends" he uses the rhyme scheme "abab" through out the poem, as seen in lines 1-4:

Now must I these three praise-

Three women that have wrought

What joy is in my days

One that no passing thought.

He uses the same scheme in his poem "Sailing to Byzantium" in lines 1-4:

That is no country for old men. The young

In one another's arms, birds in the trees

Those dying generations-at their song

The salmon falls, the mackerel-crowded seas.



In “Leda and the Swan”, this rhyme scheme is used again, as seen in lines 1-4:

A sudden blow: the great wings beating still  
Above the staggering girl, her thighs caressed  
By the dark webs, her nape caught in his bill,  
He holds her helpless breast upon his breast.

William Butler Yeats’s poetry is full of solid imagery and imagination. It is not hard to envision in one’s head. what is unfolding is his poetry as one reads it. His style uses different themes throughout art and literature to lend beauty to his work. Not afraid to stray into what many may call the realm of the extraordinary, his passion for his art is abundant in his work and he is a legend in the world of literature.

## Proofreading Document 1

Human beings have been using pleasant fragrances since the dawn of civilization. For example, when archaeologists excavate the tombs of Egyptian pharaohs—persons who lived thousands of years ago— they often find jars containing traces of fragrant oils (used for anointing one's body) and various forms of incense—substances that, when burned, release pleasant odors. These two major uses of fragrance have continued until the present current magazines are filled with ads for perfumes and colognes, and sales of devices for releasing pleasant smells into the air have been rising steadily in recent years. Indeed, the present author has contributed in a small way to this activity: he has patented a device for enhancing indoor environments through air filtration, noise control, and the release of pleasant fragrances.

Do pleasant fragrances actually yield the beneficial effects that many persons assume. This question has recently received increased attention from social psychologists. In one sense, this growing interest in the potential effects of pleasant odors represents a logical extension of a line of investigation that has constituted for more than 20 years in social psychology. Efforts to

study the effects of environmental variables such as temperature, lighting, noise, and air quality on social behavior. Within this context, ambient fragrances merely constitute an additional aspect of the physical environment that may, potentially, influence behavior.

However, research on this topic also represents a scientific response to strong claims by aroma therapists and others to the effect that pleasant fragrances exert powerful (one might even say magical) effects on behavior. Social psychologists interested in effects of the physical environment find such claims disturbing because they rest largely on informal observation rather than systematic data. The present study and several previous experiments on the potential effects of pleasant odors were undertaken to help replace such speculation with scientific knowledge.

Initial research by social psychologists on the effects of pleasant fragrances focused on their use as aids to personal grooming. Such research considered the question of whether individuals could enhance their attractiveness to others through the use of scented products such as perfumes and colognes. More recently, researchers have turned their attention to the second use of fragrance noted above: its release into the air as a

means of enhancing indoor environments. In this context, pleasant odors are not associated with a specific person; rather, they are used simply to render indoor environments more pleasant. As noted earlier, research on this topic can be viewed as an extension of previous research on the effects of the physical environment on social behavior. The results of several recent studies on this topic indicate that ambient pleasant odors do indeed influence behavior. For example, in two related investigations, participants worked on fairly complex cognitive tasks (forming words from scrambled letters; decoding messages) either in the presence or in the absence of several different odors previously rated as very pleasant by judges. Performance on these tasks was significantly better in the presence of these odors than in their absence. Further, when asked to help either the experimenter (by volunteering to participate in another study without compensation) or another participant, persons who worked in the presence of the pleasant odors showed significantly greater helping both immediately and at a later time (i.e., a higher proportion of persons exposed to pleasant fragrances completed a questionnaire at home on their own time and returned it to the experimenter).

Previous research also suggests one potential mechanism through which ambient fragrances might influence social behavior: by producing mild increments in positive affect. Several findings offer support for this possibility first, in some recent studies, participants exposed to pleasant odors reported higher levels of positive affect than those not exposed to such odors. Similarly, hospital patients exposed to pleasant odors report significantly greater improvements in mood than patients not exposed to such aromas. Finally, exposure to pleasant fragrance has been found, in two studies, to increase helping to the same extent as receipt of a small, unexpected gift. Because previous research indicates that receipt of a small gift produces increments in positive affect, these findings suggest through the method of converging operations, that the effects of pleasant odors on social behavior may also stem, at least in part, from fragrance-induced increments in positive affect. Specifically, it sought to determine whether effects similar to those reported in previous laboratory studies would also be obtained in a field setting And with helping tasks different in nature from those employed in previous investigations. To examine these questions, it was

necessary to identify field locations where pleasant odors are present and where individuals can engage in spontaneous acts of helping. Shopping malls appeared to meet these requirements. In large malls, numerous businesses release pleasant odors into the air (e.g., bakeries, coffee-roasters, candle and scent retailers; Moreover, the high volume of shoppers provides ample opportunity to measure several forms of spontaneous helping behavior.

On the basis of the studies described above, it was predicted that passerby would experience mild elevations in mood in the presence of pleasant odors and would, therefore, be more likely to engage in acts of spontaneous helping in the presence than in the absence of this environmental variable. To investigate this hypothesis and to establish appropriate methodology, a preliminary study was conducted. In this investigation, 232 passersby at a large shopping mall were exposed to one of two different Opportunities to help a stranger: retrieving a pen dropped by an accomplice or providing the accomplice with change for \$1. Immediately, after exposure to one of these two helping opportunities, participants were approached by a second assistant and asked to rate their current mood on a simple 5-point scale (1= very bad, 5= very good). Results

indicated that helping by passerby was significantly increased for both tasks by the presence on pleasant ambient fragrances. Moreover, persons exposed to pleasant fragrances reported being in a significantly more positive mood than persons not exposed to pleasant odors.

Interpretation of these findings was rendered somewhat problematic, however, by the fact that in this preliminary study, all participants were first presented with an opportunity to help a stranger and then, after this, were asked to rate their current moods. Previous research indicates that helping others can produce increments in positive affect. It is possible that at higher levels of positive affect reported by participants in the pleasant-fragrance condition stemmed from their higher incidence of helping rather than from the presence of pleasant odors.

## Proofreading Document 2

Women have not always had to worry about their rights in the workplace. For the longest time women held jobs that were considered women's work, such as teaching, being a secretary, being a librarian, or being a housewife. In the past, most women wouldn't dream of working while pregnant, let alone after the baby was born. During WWII women took over the major jobs while the men went to fight. They gave them up when the men came home, and went back to doing "women's" work.

Once Title VII of the Civil Rights Act passed, however, things began to change. Women expected to be hired for the same jobs as the men they competed with as long as they were qualified. They now had legal backing if they were denied. This was a huge step for women's rights, but they still weren't out of the woods. Many were fired or not hired if they had children or were pregnant. Employers often asked during interviews if the woman planned on having children, if she did have children, and who would be taking care of them while she was at work.

Obviously, women still had hurdles to jump in order to be treated fairly in the workplace and on interviews. A big break for women came with the Pregnancy Discrimination



Act of 1978, which prohibited discrimination based on pregnancy, and any conditions related to pregnancy and childbirth. This act overruled the decision in General Electric v. Gilbert. In this case, the employer did not have provisions for pregnancy related disabilities. And problems in the offered disability plan. The courts found for the employer, stating that no sex discrimination was to be found under Title VII since there was no argument about the differences between men and women: but instead on pregnancy status. The passing of the act made it unnecessary for women to choose between having a family and having a career.

The act also requires employers to treat pregnancy as a short-term disability, and afford pregnant women the same privileges that would be given to any other employee with a short-term disability. Employees are also allowed to retain there seniority while on maternity leave. Of importance here is that the leave granted does not have to be paid. The employer is not required to treat pregnant women drastically differently than other disabled employees. They are not to be given special treatment, and they are expected to carry out the basic functions of the job. This gives the employer some rights when dealing with

pregnant women who want to use their pregnancy as an excuse for substandard work, frequent absenteeism, and laziness on the job. If there are real complications with the pregnancy, then the women is covered, but employers do not have to retain an employee, disabled or otherwise, if they are not performing the basic functions of the job. Employers are also not required to grant more time for maternity leave than they would for another disabled employee's leave.

Employers can also discriminate against pregnant women if they can prove that having non-pregnant employees is a bona-fide occupational qualification. The courts usually uphold this defense When the safety of others is in jeopardy because an employee is pregnant.

A touchy subject that often arises when dealing with pregnancy issues in the workplace is that of benifits. Many employers try to keep costs as low as possible and they may not want to include provisions for pregnancy. Under the act, employers are prohibited from not providing pregnancy benefits for their female employees, or for the spouses of male employees. This is an important point because while they must provide benefits for pregnancy, employers are not required to provide benefits and coverage

for fertility treatments. This was concluded by some courts to not be related to pregnancy or childbirth, and is therefore not covered. Abortion procedures are also exempt from coverage from the act unless the pregnancy puts the health or life of the mother at risk.

Another topic that has become an issue in the work place is that of breastfeeding. Many women over the years have argued that their employers should provide a private, clean place for them to express milk, or that they should be allowed time off to feed. Many courts, however, have not found that breastfeeding is covered by the act. Courts have not required employers to accommodate breastfeeding women.

Many courts do not consider any conditions after the birth of the child covered by the act. In the case of *Martinez v. NBC Inc*, and in *Jacobson V. Regent Assisted Living*, the plaintiffs requested short break times to express milk in a private, clean location on the worksite. Both cases were found for the employer, and breastfeeding was found outside the umbrella of the Pregnancy Discrimination Act.

The issue is not gone, however, even with the rulings by the courts. Many states are enacting legislation in

order to accommodate breastfeeding in the workplace. Hawaii, for example, has passed a law that prohibits Employers from keeping employees from expressing milk during regularly scheduled breaks and lunch periods. The law also prohibits discriminatory actions against prospective and current employees based on whether or not they are lactating. The state also proposed a tax credit to employers who make some kind of accommodation for pumping at work. Many employers have voluntarily enacted policies that are "mother friendly". They provide somewhere for woman to express milk other than in a bathroom stall. Many have no problem granting extended leave, or allowing employees to use accrued vacation and sick time in order to extend their leave. Some offer daycare on site. This is not the case for all employers, however. Some businesses are too small to handle the extra cost of providing daycare. There is also a stipulation that if the employer has fewer than 15 employees they are exempt from the Pregnancy Discrimination Act all together.

Because of the touchy issues that surround pregnancy discrimination, managers and employers need to be careful when running their businesses. They need to be aware of the laws, which basically start upon entry. Since

not all states have laws regarding breastfeeding or accommodations that go beyond what is required by the Pregnancy Discrimination Act, employers need to be aware of what standards the state holds businesses to. Ignorance of the law will not hold up in court if they do in fact break the law in regards to pregnant or breastfeeding employees.

Managers need to make sure that when interviewing prospective employees, they do not ask any questions relating to the current or future pregnancy status of the women. Such questions are illegal, and the Pregnancy Discrimination Act protects women from such questions.

Managers also need to be aware of what benefits are offered by the company and they need to make sure that they do not discriminate against pregnancy. There should be provisions for pregnancy coverage in the health plans offered to employees and the spouses of male employees.

### Proofreading Document 3

The argument about what I/O psychology is and where it is going has not gone away. At the start of the quarter, our big dilemma was trying to define exactly what I/O psychology is. We found out that there is a debate currently within SIOP about what we are, what our name should be, and whether or not we should be licensed. At the end of the quarter, we still have not answered any of these questions. We defended both sides of the licensure argument and have not come to a consensus.

We have been told many times that by the time we finish our program at CSUSB, we will have the skills to perform many jobs that advertise for someone with a PhD. We have also been told that because of this, the only compelling reason to get a PhD, besides getting licensed, is if we want to teach at a university we will have the skills to create tests, facilitate changes in organizations, and analyze statistical data. We will be qualified to work in personnel selection, training, and in some cases, management. Many I/O psychologists work in the human resources field. Many others work as consultants in organizational development, test development, and other fields. The question here is if we will be qualified to do

all of these things upon graduation from our MS program, why should we become licensed.

There are several good arguments for requiring I/O psychologists to be licensed. There is the growing concern among the I/O community about individuals in other professions calling themselves I/O practitioners or psychologists who do not really have the training to do our jobs. Business students are applying for jobs as I/O consultants without our training, or our focus on the employee instead of the profit margin. Clinical psychologists are attempting to perform our jobs without any background in organizational development, test development, personnel selection, or the other skills we acquire in our training. They use tests that may not be relevant to the needs of the organization, they may not be familiar with the various laws that govern employment. We, on the other hand, have taken a course on employment law. Business students may not consider the effects of changes in the organization on the employees. I/O psychologists, especially those that are trained in organizational development, take everyone into consideration when making decisions.

Those who argue for licensure want some kind of accountability for our actions within organizations. The argument here is that I/O psychologists can make decisions that effect the lives of not only the employees, but also prospective employees, and in some cases, the public. Those pushing for licensure want protection against malpractice in our field. In class, one discussion centered around our current accountability. When we take a job, we will have a contract stating what the company expects of us, but the concern here is that if we misuse our power, or promise something we cannot deliver, there should be a tougher punishment than just a breach of contract lawsuit. If our actions cause harm, we should be held accountable by more than just a contract. There should be some governing board that makes sure we do not behave in an illegal and unethical manner.

Arguments against licensure are equally compelling. At present, there is no test specifically tailored for I/O psychologists. The licensing test is a broad test that covers all areas of psychology. The test is more geared toward clinicians. Those against licensure argue that the test available is not really useful in testing the I/O



psychologist's knowledge, and that if a test is required, then it needs to focus on I/O psychology.

In support of the argument against licensure, the requirements for licensure currently make it very Hard for an I/O psychologist to even be able to sit for the test. The requirements of licensure, at present, include supervised experience under a licensed psychologist before one can sit for the exam, and a doctoral degree from an accredited program. It is very difficult for I/O psychologists to find a licensed psychologist in the field to work with, and I/O programs are not accredited. Along with these arguments, SIOP does not currently support licensure because of the many negative impacts it has on I/O psychologists. There lack of support may have a big impact on the opinions of other I/O psychologists since very few I/O psychologists are members of APA (which created the licensure requirements) and many more are members of SIOP.

There is also the question about our name. Will it remain I/O psychology, or will it change to something like business psychology? Where will our field go in the future?

Before any major decisions are made about licensure or our programs, we may need to decide on whether or not our name is going to change. Our name is important because what we are called will greatly impact how others see us. The name I/O psychology gives a completely different connotation than something like business psychology, human resources psychology, or organizational psychology. Our name can also limit what areas we will be considered qualified for. For instance, if we are called human resources psychologists, people will assume we specialize in interviewing and hiring. Many may not consider the fact that we can also create tests or training programs, or that we have an extensive background in statistics.

The field of I/O psychology has many different roads it can take, but some key decisions need to be made first. SIOP needs to settle the issue of whether or not we are going to keep our name before anything else changes. It may not be a good idea for them to grant licenses for I/O psychology and then decide to change the name. They may decide that they don't like the new name, and they may go through the debate again. I think that this issue needs to be settled for good before any more steps are taken.

As far as licensure goes, if the field can come up with their own test and requirements separate from the APA test and requirements, licensure probably will not hurt the field any. Licensure will definitely add weight to our profession, and it will keep those not qualified from practising I/O psychology, and giving the field a bad reputation. If the field does decide to require licensure, then decisions need to be made about regulating the different I/O programs. There cannot be a comprehensive test for I/O licensure if all of the programs at different schools have different requirements and classes. There needs to be a consensus on what classes are required for the degree so that people from different institutions are not receiving a drastically different program than students across the country. If there is to be a test, then the programs need to be uniform so that no one has an unfair advantage as far as the materials learned and needed to practice in the field.

The field of I/O psychology is beginning to be more recognized than it was in the past. More people are beginning to know what we do, and the benefits of our profession. Business publications are starting to mention

us the field will only get bigger once more individuals in the business world recognize us.

#### Proofreading Document 4

The sense of taste is one of the chemical senses of the body. Chemical senses rely on molecules entering the body to be interpreted by the brain instead of outside sensations, like touch. The tongue is the first point at which the process of taste begins. The tongue is covered by small bumps, called taste receptors, or buds, which are triggered by taste stimuli. The tongue is not a smooth organ. It is covered in papillae, which are the ridges one feels on the tongue. The papillae are found in four areas of the tongue, and there are four types of papillae. The first type of papillae are the filiform papillae, which are shaped like cones and are found over the entire surface of the tongue giving it its rough appearance. The second type are the fungiform papillae, which are shaped like mushrooms and are found at the tip and sides of the tongue. The third type are the foliate papillae, which are a series of folds along the sides of the tongue and the fourth are the circumvallate papillae, which are shaped like flat mounds surrounded by a trench and are found at the back of the tongue. The filiform papillae do not have taste buds. This is why there is no taste sensation in the center of the tongue, where the filiform papillae are found.

When the taste buds are stimulated, signals must travel from them to the brain. The chorda tympani nerve conducts signals from the front and sides of the tongue, and the glossopharyngeal nerve conducts signals from the tongue. From these two nerves, signals are carried to the vagus nerve, and from there they are transmitted to the thalamus, the insula, and the frontal operculum cortex in the frontal lobe of the brain. Along with these paths, some taste signals are carried to the orbital frontal cortex.

Studies on taste have identified four basic taste qualities: sweet, sour, bitter, and salty. Most of the foods we eat can will be described in one of these terms in regards to their taste. However, when we taste food, the tongue is not the only receptor for the flavors we perceive. The olfactory system, or our sense of smell, plays a large part in our ability to taste and enjoy food" For example, when we have a cold and we cannot smell anything, many times we cannot taste anything either. We get a sensation for the texture and temperature of the food we eat, but there is no taste sensation The reason the olfactory system is so important in our perception of taste is because odor stimuli from the food reaches the olfactory

mucosa by following the retronasal route and the nasal pharynx, which connect the oral and nasal cavities. When the passages are not blocked, the taste of the food is obvious. Identifying tastes without these cues is much more difficult.

#### *Functions of Taste*

It is hypothesized that the main function of taste is to maintain proper nutrition. Animals, according to this hypothesis, choose their diet based on what their nutritional needs are, and taste allows them to choose the appropriate foods. Following this hypothesis to its natural conclusion, humans use taste to discriminate between healthful and safe foods from foods that are harmful, poisonous, or foods that lack any nutritional value). We either accept what we taste as good for us and then swallow and digest it, or we reflexively spit it out. Both behaviours are based on what we taste. Animals instinctively seek out pleasurable experiences, and avoid unpleasant ones. Most animals have a predisposition to enjoy sweet substances, and to choose these over other substances, when given a choice. One study done in 1942 focused on a young boy with a brain tumor who consumed excessive amounts of salt in order to live. It resulted in

dehydration, but his need for salt was caused by the tumor, which effected a certain part of his brain and created a salt deficiency. Other considerations, like the fact that he was becoming dehydrated, paled in the face of this need. This study supports the theory that animals use taste as a way to satisfy nutritional needs.

#### *What Does Brain Damage Do to Taste?*

Clinicians believe that loss of taste is less frequent than loss of smell, but that there is a relationship between the two. Five percent of cases involving loss of smell involve the loss of taste. Cases involving loss of taste after brain damage are highly rare. They occur in less than 0.5% of cases, compared to the number of cases involving loss of smell, which occur in 20%-30% of brain damage cases.

Loss of taste does not always occur immediately; after brain damage. The loss may not manifest itself for up to several months after an injury. Injuries to the facial area increase the risks of damage to taste and smell. The bitter taste sensation is most likely to be lost; if taste can be recovered, sweet sensations are likely to return before bitter sensations.



Disorders of smell and taste are linked, and usually are the result of damage to chemoreceptive brain centers in the anterior frontal and temporal brain areas. Given the fact that the flavor of food is linked to its taste and smell, this is not a farfetched idea. Research has found that two of the most important brain areas associated with taste are protected from head trauma, which makes it difficult for damage to occur.

The taste system travels from the tongue to the brain cortex. During experiments in which specific brain areas are stimulated, subjects report taste sensations. Conversely, stroke patients with damage to the areas of the brain that are responsible for taste sensations suffer a reduction in intensity and quality of taste, or complete loss of the sensation. Experiments also show that the intensity of taste on either side of the tongue can be effected by brain damage. Some experiments show that subjects with brain damage can identify a taste when using their entire mouth, but when only one area of the tongue is focused on, they cannot do so.

Brain damage can also effect patient's liking for certain flavors. Some patients who have had strokes report

less liking for sweets or salt after the stroke, whereas before the stroke, they enjoyed both of these flavors.

Changes in the quality or intensity of taste and smell can happen with age. Geriatric individuals often report that food no longer tastes the way it used to. This signals not only dysfunction in the taste systems, but in the olfactory systems as well, because smell plays a large part in how food tastes, and the enjoyment of food.

As individuals age their taste sense is desensitized. The intensity of some flavors decline dramatically. Geriatric individuals may increase the amounts of sugar or salt in their food to compensate for this desensitization.

Damage to the brain, and changes due to ageing effect more than many people suspect. Taste and smell are two senses that are important to all of us, but not often thought about in terms of loss. Intensity of flavor, identification of food, and enjoyment are all effected when one loses their sense of taste or smell.

APPENDIX E  
EXIT SURVEY AND  
DEBRIEFING STATEMENT

## Exit Survey

1. ID Number: \_\_\_\_\_
2. Age: \_\_\_\_\_
3. Gender: \_\_\_\_\_
4. Have you had experience being laid off from an organization?  

Yes
No

### Procedural Justice

5. Please rate the overall fairness of the procedures you experienced during the experiment when your matched partner was asked to leave.  

1	2	3	4	5	NA
Not Fair At All		Neutral/ Unsure	Extremely Fair		
6. Did you attempt to ask for an explanation when the second participant was dismissed?  

Yes
No
NA
7. Were you concerned about receiving extra credit for your participation after the second participant was dismissed?  

1	2	3	4	5	NA
I was not concerned at all about my extra credit		No Opinion	I was very concerned about receiving my extra credit		

### Work Overload

8. Did you feel that you had adequate time to complete your task before the second participant was dismissed?  

1	2	3	4	5	NA
I did not feel that I had adequate time to complete my task		Neutral/ Unsure	I felt that I had adequate time to complete my task		
9. Did you feel that you had adequate time to complete your task after the second participant was dismissed and you were given their assignment?  

1	2	3	4	5	NA
I did not feel that I had adequate time to complete my task		Neutral/ Unsure	I felt that I had adequate time to complete my task		
10. How much stress did you feel after the second participant was dismissed?  

1	2	3	4	5	NA
I felt no stress at all		Neutral/ Unsure	I felt a high amount of stress.		

## Performance and Motivation

11. How would you rate your performance level before the second participant was dismissed?

1	2	3	4	5	NA
My performance was very poor		Neutral/ Unsure		My performance was very high	

12. How would you rate your performance level after the second participant was dismissed?

1	2	3	4	5	NA
My performance was very poor		Neutral/ Unsure		My performance was very high	

13. How committed to completing the task were you after the second participant was dismissed?

1	2	3	4	5	NA
I had no desire to complete the task		Neutral/ Unsure		I was still committed to completing the task	

## Study of Procedural Justice and Work Overload Debriefing Statement

This study you have just completed was designed to investigate the effects of procedural justice and workload on performance. In this study, procedural justice was manipulated by either informing the participants that their matched partner had been released from the study due to scheduling problems and that they would receive credit for their participation, or told that there was no known reason for the dismissal and no credit would be given. Workload was manipulated by either giving the remaining subject the work of their matched partner or not giving them extra work.

In order to preserve the integrity of the study and to prevent participants from acting on the hypotheses and confounding the data, deceptions were used. No participants were released from this study, and all participants received credit for their participation. The matching of participants was done completely at random.

Thank you for your participation and for not discussing the contents of the decision question with other students. If you have any questions about the study, please feel free to contact Seana M. Nuñez or Dr. Janelle Gilbert at 909-880-5587. If you would like to obtain a copy of the group results of this study, please contact Professor Gilbert at the end of Spring Quarter of 2006.

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